PATENT
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Claims:

1. An encapsulation between an expandable downhole tool and the wall of a wellbore, the encapsulation comprising:

a first arcuate wall having a first end and a second end; and

a second wall having a first end and a second end, said first and second ends of said second wall contacting said first and second ends of said first arcuate wall so as to form a housing between said first and second walls.

2. The encapsulation of claim 1, wherein said expandable downhole tool is an expandable tubular, and wherein said encapsulation is fabricated from a deformable material.

3. The encapsulation of claim 2, wherein said encapsulation serves as a housing for one or more of the following: control lines, instrumentation lines and downhole sensors.

4. The encapsulation of claim 3, wherein said expandable downhole tool is a sand screen.

5. The encapsulation of claim 4, wherein said wellbore includes an open hole portion such that said sand screen is expanded into substantial contact with the wall of the formation.

6. The encapsulation of claim 4, wherein said wellbore defines a cased hole completion such that said sand screen is expanded into substantial contact with casing.

7. The encapsulation of claim 4, wherein said encapsulation is profiled in a crescent shape.

8. The encapsulation of claim 7, wherein said encapsulation further serves as a housing for at least one metal tubular, said at least metal tubular housing said one or

more of the following: control lines, instrumentation lines and downhole sensors.

9. An encapsulation between an expandable downhole tool and the wall of a wellbore, the encapsulation comprising at least two walls fabricated from a deformable material, said encapsulation deforming to the general contour of the wall of the wellbore when said downhole tool is expanded against said wall of the wellbore.

10. The encapsulation of claim 9, wherein said expandable downhole tool is a sand screen, and wherein said wall of the wellbore is the wall of the formation.

11. The encapsulation of claim 10, wherein said encapsulation serves as a housing for one or more of the following: control lines, instrumentation lines and downhole sensors.

12. The encapsulation of claim 11, wherein said encapsulation comprises at least one arcuate wall.